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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
KARIKARI, KWASI

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 May 2006*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   The Art Unit location of your application in the USPTO has changed. To aid in

correlating any papers for this application, all further correspondence regarding this

application should be directed to Art Unit 2617.

Response to Arguments

2.   Applicant's arguments with respect to claims 1-17 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,5, 14 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention. The amended claimed limitations "remove", in

claims 1,5,14 and 15 are not clearly described in the specification as originally filed and

this constitute new matter. All claims that depend on the above rejected claims are also

rejected for fully incorporating the deficiencies of the above rejected claims from which

they depend. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 and 12-17 are rejected under U.S.C. 103(a) as being unpatentable

over Applicant's Admitted Prior Art (Fig. 3, " Description of Prior Art"),

(hereinafter AAPA) in view of Lev et al., (U.S. 5,608,779), (hereinafter Lev).

Regarding **claim 1**, the AAPA discloses an apparatus (see Page 1, line 20 and Fig. 3)

for use in a switching network of a telecommunication system [Page 1, line 0002], said

apparatus including:

a plurality of transcoding units (Page 6, line 14) for encoding and decoding data,

including speech data, wherein at least one transcoding unit of said plurality of

transcoding units are for operating in tandem-free operation mode (Page 3, lines 31-34),

switching means (Page 1, line 37) including speech data through said plurality of transcoding units;

a transcoder controller (Page 6, line 16) for controlling said switching means and said plurality of transcoding units, wherein said transcoder controller is adapted for instructing said switching means to insert one of said plurality of transcoding unit into a data path associated with a connection between a mobile terminal of said telecommunication system (encoding and decoding process, see Page 4, lines 1-35) determining that a switching controller associated with the switching means is transparently (data received from TRAU will determine whether tandem-free operation is possible, Page 4, line 36-Page 5, line 7) through-connecting the data and wherein said transcoder controller is adapted to instruct said one of said at least one transcoding unit to operate wherein said transcoder controller is adapted to instruct, during said connection (both tandem-free and normal operation operations are implemented, see Page 2, lines 35-Page 3, line 5 and Page 4, lines 26-35); but fails to teach that said switching means to remove said one of said plurality of transcoding unit from said data path.

Lev teaches the a switching process wherein during call processing, transcoders can be instructed either to operate in transparent mode; compressed digital audio is passed through without conversion; or operate in transcoding mode; compressed digital audio is converted into non-compressed digital audio and verse versa (see col. 4, lines 11-28 and col. 5, line 12- col. 6, line 56); whereby the transparent mode is associated with "removal of said plurality of transcoding unit from data path" .

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Lev and the AAPA for the benefit of achieving a system that can let allow compressed data voice signal to transparently pass through transcoders thereby minimizing delay time and voice degradation in voice transmission between mobile entities (see col. 1, lines 15-64).

Regarding **claim 2**, the AAPA, as modified by Lev, discloses the apparatus according to claim 1, further including:

a plurality of TCME units (Page 5, line 23), for performing TFO-specific circuit wherein said transcoder controller is adapted to instruct said switching means to insert one of said plurality of TCME units into said data path, and wherein said transcoder controller is adapted to instruct, during said connection, said switching means to <u>remove</u> said one of said plurality of TCME units from said data path (TCME units to eliminate the 48kbps of decoded data and forward the original 16 kbps coded data,

(see Page 5, lines 16-35 and Page 6, lines 25-29).

Regarding **claim 3**, the AAPA, as modified by Lev, discloses the apparatus according to claim 1, wherein said transcoder controller is adapted to determine whether a switching controller (Page 1, lines 25-27) of said switching network intends to add supplementary services during said connection (Page 2, lines 10-22 and Page 6, lines 11-24), and wherein said transcoder controller is adapted to instruct, during said connection; but fails to teach said switching means to "<u>remove one of the said transcoding unit</u>".

Levi teaches the a switching process wherein during call processing, transcoders can be instructed either to operate in transparent mode; compressed digital audio is passed through without conversion; or operate in transcoding mode; compressed digital audio is converted into non-compressed digital audio and verse versa (see col. 4, lines 11-28 and col. 5, line 12- col. 6, line 56); whereby the transparent mode is associated with "removal of said plurality of transcoding unit from data path" .

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Levi and the AAPA for the benefit of achieving a system that can let allow compressed data voice signal to transparently pass through transcoders thereby minimizing delay time and voice degradation in voice transmission between mobile entities (see col. 1, lines 15-64).

Regarding **claim 4**, the AAPA, as modified by Lev, discloses the apparatus according to claim 3, wherein said transcoder controller is adapted to instruct, during said connection, said switching means to insert one of said plurality of transcoding units into said data path, if said switching controller intends to add supplementary services (Page 2, lines 10-22 and Page 6, lines 11-29); but fails to teach remove one of said at least one transcoding unit.

Regarding **claim 5**, the AAPA, as modified by Lev, discloses the apparatus claim 2, wherein said transcoder controller is adapted to determine whether or not a switching

controller of said switching network intends to add supplementary services during said

connection (Page 2, lines 1-22), and

wherein said transcoder controller is adapted to instruct, during said

connection, said switching means to <u>remove</u> said one of said plurality of TCME units

from said data path, if said switching controller does not intend to add supplementary

services (Page 2, lines 1-9; Page 5, lines 18-31 and Page 6, lines 18-29).

Levi teaches the a switching process wherein during call processing, transcoders

can be instructed either to operate in transparent mode; compressed digital audio is

passed through without conversion; or operate in transcoding mode; compressed digital

audio is converted into non-compressed digital audio and verse versa (see col. 4,

lines 11-28 and col. 5, line 12- col. 6, line 56); whereby the transparent mode is

associated with "<u>removal of said plurality of transcoding unit from data path</u>" .

It would therefore have been obvious to one of the ordinary skill in the art to

combine the teaching of Levi and the AAPA for the benefit of achieving a system that

can let allow compressed data voice signal to transparently pass through transcoders

thereby minimizing delay time and voice degradation in voice transmission between

mobile entities (see col. 1, lines 15-64)

Regarding **claim 6**, the AAPA, as modified by Lev, discloses the apparatus claim 5,

wherein said transcoder controller is adapted to instruct, during said connection, said

switching means to insert one of said plurality of transcoding units as well as one of said

plurality of TCME units into said data path, if said switching controller intends to add

supplementary services (Pages 4, lines 26-31; Page 5, lines 18-31 and Page 6, lines 18-29).

Regarding **claim 7**, the AAPA, as modified by Lev, discloses the apparatus claim 6, wherein said transcoder controller is adapted to determine, based on an evaluation of locally available information, whether or not a switching controller of said switching network intends to add supplementary services (Page 2, lines 3-17) during said connection (transcoder controller allocates a TRAU to each connection data, see Page 6, lines 11-24).

Regarding **claim 8**, the AAPA, as modified by Lev, discloses the apparatus claim 7, wherein said locally available information includes results of a supervision of inputs and outputs of said apparatus (Page 3, lines 15-30).

Regarding **claim 9**, the AAPA, as modified by Lev, discloses the apparatus claim 7, wherein said locally available information includes results of a supervision of reports from said one of said plurality of transcoding units and said plurality of TCME units (data received from TRAU will determine whether tandem-free operation is possible, Page 4, line 36-Page 5, line 7).

Regarding **claim 10**, the AAPA, as modified by Lev, discloses the transcoding apparatus claim 7, wherein said locally available information includes information

received from said switching controller (switch controller adds supplementary services to the speech data, Page 2, lines 10-20).

Regarding **claim 12**, the AAPA, as modified by Lev, discloses the apparatus claim 11, further including at least one protocol/interface conversion unit, for performing protocol conversion operations between different interfaces, wherein said transcoder controller is adapted to instruct, during said connection, said switching means to insert one of said at least one protocol/interface conversion unit into said data path (Tandem Free Operation protocol has been developed for GSM system, (see Page 4, lines 1-12 and Page 5, lines 11-24).

Regarding **claim 13**, the AAPA, as modified by Lev, discloses the apparatus according to claim 12, further including at least one link supervision function unit for monitoring the TFO protocol wherein said transcoder controller is adapted to instruct, during said connection, said switching means to insert one of said at least one link supervision function unit into said data path (Page 4, line 36- Page 5, line 11).

Regarding **claim 14**, the AAPA, discloses a TCME head apparatus for use in a switching network of a telecommunication system, said TCME head apparatus including:

a plurality of TCME units (Page 5, line 23) for performing TFO-specific circuit multiplication operations;

switching means (Page 2, line 3-7) adapted to switch data through said plurality

of TCME units;

a TCME head controller (Page 6, lines 11-24) for controlling said switching

means and said plurality of TCME units wherein said TCME head controller is adapted

for instructing said switching means to insert one of said plurality of TCME units into a

data path associated with a connection between a mobile terminal of said

telecommunication system and said switching network;

a switching controller associated with the switching means is apparently through-

connecting the data (data received from TRAU will determine whether tandem-free

operation is possible, Page 4, line 36-Page 5, line 7) wherein said TCME head

controller is adapted to instruct, during said connection, said switching means (Page 2,

line 35- Page 3, line 5; Page 3, lines 15-30 and Page 4, lines 26-35), to remove said

one of said plurality of TCME units from said data path (see Page 6, lines 18-29); fails to

teach the determination process of switching in relationship with the TCME.

Levi teaches the a switching process wherein during call processing, transcoders

can be instructed either to operate in transparent mode; compressed digital audio is

passed through without conversion; or operate in transcoding mode; compressed digital

audio is converted into non-compressed digital audio and verse versa (see col. 4,

lines 11-28 and col. 5, line 12- col. 6, line 56); whereby the switch center make the

determination (see col. 4, lines 11-28).

It would therefore have been obvious to one of the ordinary skill in the art to

combine the teaching of Levi and the AAPA for the benefit of achieving a system that

can let allow compressed data voice signal to transparently pass through transcoders

thereby minimizing delay time and voice degradation in voice transmission between

mobile entities (see col. 1, lines 15-64)

Regarding **claim 15**,as modified by Lev, the AAPA discloses a TCME head apparatus

according to claim 14,wherein said TCME head controller is adapted to determine

whether or not a switching controller of said switching network intends to add

supplementary services during said connection (Page 1, line 3-9 and Page 5,

lines 18-32), and wherein said TCME head controller is adapted to instruct, during said

connection, said switching means to <u>remove</u> said one of said plurality of TCME units

from said data path, if said switching controller does not intend to add supplementary

services (Page 2, lines 10-20 and Page 5, lines 18-32).

Regarding **claim 16**, the AAPA, as modified by Lev, discloses a TCME head apparatus

according to claim 15, wherein said TCME head controller is adapted to instruct, during

said connection, said switching means to insert one of said plurality of TCME units into

said data path, if said switching controller intends to add supplementary services

(Page 1, line 36- Page 2, line 20 and Page 5, lines 18-32).

Regarding **claim 17**, the AAPA, as modified by Satoh, discloses a TCME head

apparatus according claim 16, wherein said TCME head controller is adapted to

determine, based on an evaluation of locally available information, whether or not a

switching controller of said switching network intends to add supplementary services

during said connection (TCME head controller allocates a TCME units to eliminate the

48kbps of decoded data and forward the original 16 kbps coded data,

(see Page 6, lines 25-29 and Page 5, lines 18-32).

5.   **Claim 11 is rejected under 35 U.S.C 103(a) as being unpatentable over**

Applicant's Admitted Prior Art in view of Lev and further in view of Yoon U.S

(6,842,508).

Regarding **claim 11**, as applied to claim 10 above, the combination of the AAPA and

Lev fails to teach said information received from said switching controller includes port

address information.

Yoon teaches a voice mail system for a private switching system which has a

voice and signal processing section that include a vocoder, a control section that

exchange call messages and a communication control section (see col. 3, lines 50-64

and Fig. 4, item 30a). Yoon further discloses a dual port RAM 30d that maintains

transmission and/or reception, including a port address (see col. 6, lines 13-20).

It would therefore have been obvious to one of the ordinary skill in the art to

combine the teaching of Yoon with the AAPA and Lev for the benefit of achieving a

system that compresses a voice data which can later be transmitted to call-connected

opponent.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to
applicant's disclosure.

Aftelak (6,132,242) teaches a method of reverting to tandem operation between
transcoders of a communication system

Sato et al., (20030032440) teaches a multipoint communication method and
communication control device.

Mayer (6,556,844) teaches a process for transmitting data in particular GSM data.

        Applicant's amendment necessitated the new ground(s) of rejection presented in
this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37
CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within
TWO MONTHS of the mailing date of this final action and the advisory action is not
mailed until after the end of the THREE-MONTH shortened statutory period, then the
shortened statutory period will expire on the date the advisory action is mailed, and any
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
the advisory action. In no event, however, will the statutory period for reply expire later
than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwasi Karikari whose telephone number is 571-272-8566. The examiner can normally be reached on M-F (8 am - 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8566.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kwasi Karikari
Patent Examiner.

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER